Abstract

A varactor diode alternative circuit having at least three varactor diodes that are in each case connected in series alternatingly opposite to one another and a resistor network and/or inductor network, which has the effect that

a) at each of the varactor diodes, a control voltage supplied to the circuit for adjusting the capacitance is present at least approximately at full extent, and

b) an alternating voltage that is applied at the series connection of the varactor diodes, which is at a higher frequency compared to the control voltage, is distributed preferably at least approximately uniformly to the varacter diodes.

The varactor diode alternative circuit, according to the present invention, has the advantage that even for a smaller, or not larger, or not substantially larger tuning voltage compared to the amplitude of a signal voltage that is to be processed in the oscillator circuit that has the alternative circuit, the reactions of the signal voltage on the set capacitance of the varactor diode alternative circuit remain negligible, or at least low. Thus, intermodulation interferences are effectively avoided. In addition, the circuit may be advantageously used in an electrical unit in which only one small operating voltage is available, for instance, in a battery-operated unit.

Figure 2